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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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DARBY & DARBY P.C. P. O. BOX 5257 NEW YORK, NY 10150-5257			EXAMINER SUBRAMANIAN, NARAYANSWAMY	
			ART UNIT 3692	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

09/580,448

**Applicant(s)**

SNYDER, SCOTT ANDREW

**Examiner**

Narayanswamy Subramanian

**Art Unit**

3692

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 4 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16, 18-22, 25-40, 42, 45, 68, 70-72 and 74-77 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16, 18-22, 25-40, 42, 45, 68, 70-72 and 74-77 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This office action is in response to applicants' communication filed on April 24, 2007. Claims 1-16, 18-22, 25-40, 42, 45, 68, 70-72, 74-77 are currently pending in the application and have been examined. The objections, rejections and response to arguments are stated below.

#### *Specification*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. The specification is objected to under 35 U.S.C. § 112, first paragraph, as failing to support the subject matter set forth in the claims. The specification, as originally filed does not provide support for the invention as now claimed.

The test to be applied under the written description portion of 35 U.S.C. § 112, first paragraph, is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession at that time of later claimed subject matter. *Vas-Cat, Inc. v. Mahurkar*, 935 F. 2d 1555, 1565, 19 USPQ2d 111, 1118 (Fed. Cir. 1991), reh'rg denied (Fed. Cir. July 8, 1991) and reh'rg, en banc, denied (Fed. Cir. July 29, 1991).

Claims 1-16, 18-22, 25-40, 42, 45, 68, 70-72, 74-77 include the limitation "optimization parameters including information not provided by the customer". However, the specification does not provide a written description disclosure to support the claimed limitation of "optimization parameters including information not provided by the customer".

#### *Claim Rejections - 35 USC § 112*

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

Art Unit: 3692

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-16, 18-22, 25-40, 42, 45, 68, 70-72, 74-77 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In particular, claims 1-16, 18-22, 25-40, 42, 45, 68, 70-72, 74-77 are rejected under 35 U.S.C. § 112, first paragraph, for the reasons set forth in the objection to the specification.

For the art rejections given below, the claims are interpreted in light of 35 U.S.C. § 112, first paragraph rejections discussed above.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-16, 18-22, 25-40, 42, 45, 68, 70-72, 74-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sammon, Jr. et al. (US Patent 6,012,051) in view of Jacobs (US Patent 5,768,142) and further in view of Walker et al. (US Patent 6,397,193 B1).

Claims 1 and 26, Sammon discloses a method and system for assisting a customer in choosing items in commodity categories, the method and means comprising the steps of: (a)

Art Unit: 3692

ranking the options within each commodity category based, in part, on at least one optimization parameter, optimization parameters including information not provided by the customer (See Sammon Column 3 line 56 – Column 4 line 14 and Column 5 lines 14-32, the abstract hierarchical and statistical representation of the domain of interest are interpreted to include at least one optimization parameter including information not provided by the customer); (b) for each commodity category, creating a plurality of combinations of commodity options by (i) selecting a highest ranked option for a commodity category; (See Sammon Column 3 line 8 - Column 4 line 13). The product domain is interpreted to include several categories. For example the car domain would include categories such as new cars, used cars, sports cars, family cars etc. The mutual funds domain would include categories such as income fund, growth fund, balanced fund etc. The steps of assigning scores and ordering are interpreted to include the steps of ranking and selecting the highest ranked option.

Sammon fails to explicitly teach the steps of choosing a combination of commodity options, wherein said combination has at least two commodity categories, and each commodity category has at least two options; (ii) selecting any options in other commodity categories that are linked to the option selected in step (b)(i); (iii) selecting valid options for remaining commodity categories, until the combination of commodity options is complete; (c) calculating a total effective cost of each combination of commodity options; and (d) presenting the combinations of commodity options to the customer, whereby the customer selects a combination of commodity options for purchase.

Jacobs teaches the steps of choosing a combination of commodity options, wherein said combination has at least two commodity categories, and each commodity category has at least

two options; (iii) selecting valid options for remaining commodity categories, until the combination of commodity options is complete; and (d) presenting the combinations of commodity options to the customer, whereby the customer selects a combination of commodity options for purchase. (See Jacobs Column 2 line 56 - Column 3 line 62 and claim 32) The components of products are interpreted to include product categories, the complete product is interpreted to include the combination in the features disclosed.

It would have been obvious to one with ordinary skill in the art at the time of the current invention to combine the steps taught by Jacobs to the invention of Sammon. The combination of the disclosures taken as a whole, suggests that users would have benefited from selecting a combination or a product that best suits their needs and best fits their budget.

Sammon does not explicitly teach the steps of selecting any options in other commodity categories that are linked to the option selected in step (b)(i); and calculating a total effective cost of each combination of commodity options.

Walker teaches the steps of selecting any options in other commodity categories that are linked to the option selected in step (b)(i) (See Walker Column 8 lines 15-65); and calculating a total effective cost of each combination of commodity options (See Walker Column 3 lines 6-11 and Column 7 lines 2-7).

It would have been obvious to one with ordinary skill in the art at the time of the current invention to combine the steps taught by Walker to the invention of Sammon. The combination of the disclosures taken as a whole, suggests that vendors would have benefited from selling a combination of products during a single transaction (See Walker Column 1 lines 23-24).

Claims 2 and 27, Sammon discloses a method and means of claims 1 and 26 respectively, further comprising the steps of visiting a web site by the customer and sending the preferences of the customer to the web site. (See Sammon Column 1 lines 57-60).

Claims 3, 4 and 28, Jacobs discloses a method and means of claims 1 and 26 respectively, wherein step (b) comprises the additional steps of: (iv) selecting a next ranked option for a commodity category; (v) selecting any options in other commodity categories that are linked to the option selected in step (b)(iv); and (vi) selecting valid options for remaining commodity categories until the combination of commodity options is complete and the steps (b)(iv), (b)(v) and (b)(vi) are repeated for a plurality of ranks. (See Jacobs Column 3 lines 54-62).

Claims 5 and 29, Jacobs discloses a method and means of claims 1 and 26 respectively, wherein step (d) comprises presenting the combinations of commodity options ranked personally for the consumer based on the consumer's criteria. (See Jacobs Column 2 lines 60-67) The criteria specified by the customer are interpreted to include costs and the suitability rating is interpreted to include total effective cost as a criterion.

Claims 6, 7, 30 and 31, Sammon discloses a method and means of claims 1 and 26 respectively, wherein step (a) comprises computing the scores for each option and ranking the options within each category by scores. (See Sammon Column 3 lines 27-42). The scores are interpreted to include the effective cost.

Claims 9 and 33, Sammon discloses a method and means of claims 7 and 31 respectively, wherein the options are ordered according to user's preferences (See Sammon Column 3 lines 8-42). The steps of ordering the options according to user's preferences is interpreted to include the steps of calculating a total effective cost for each of the plurality of combinations of commodity

Art Unit: 3692

options by adding the effective costs of the selected options in the combinations of commodity options.

Claims 10 and 34, Sammon discloses a method and means of claims 7 and 31 respectively, wherein step (a) comprises the steps of, for each category: (i) identifying at least one first parameter associated with a commodity option; (ii) associating at least one value to the at least one first parameter; (iii) calculating an estimated cost of the commodity option based on features of the commodity category that are desired by the customer; (iv) obtaining from the customer a preference weighting on at least one second parameter; (v) calculating an effective cost of the commodity option by adjusting the estimated cost based on the preference weighting and the at least one value assigned to the parameters; and (vi) ranking the options within each category by effective cost. (See Sammon Column 1 line 50 - Column 2 line 61 and Column 3 line 8 - Column 4 line 13). The attributes and scores are interpreted to include costs and effective costs respectively.

Claims 11 and 35, Sammon discloses a method and means of claims 10 and 34 respectively, wherein the parameter is a feature, an attribute, or a performance characteristic associated with the commodity category. (See Sammon Column 7 line 33 - Column 8 line 22).

Claims 13, 14, 37 and 38, Sammon discloses a method and means of claims 12 and 36 respectively, wherein the user preferences and customer information is stored in a first database, information about the commodity including bundling links and combinations created in step (b) are stored in a second database. (See Sammon Column 5 lines 14-31). The user profile data structure could be partitioned such that the user preferences and requirements that define the utility function are in one database and other user information are in a separate database.



Claims 18 and 42, Sammon discloses a method and means of claims 1 and 26 respectively, wherein the commodity categories that are included in the combination are predefined. (See Sammon Column 1 lines 57-60).

Claims 19-22, Sammon discloses the method claim 1, wherein the commodities include a large number of multi-faceted items. (See Sammon Column 3 lines 57-60 and Column 15 lines 18-24). The multi-faceted items are interpreted to include products and services including telephone services and handsets.

Claims 25 and 45, Jacobs discloses the steps of presenting the combinations of commodity options to the customer whereby the customer selects a portion of a combination of commodity options for purchase (See Jacobs Column 4 lines 31-37)

Claims 68, 70-72 and 74-77, Sammon teaches a method and means as described in the discussion of claims 1 and 26 above, including the step wherein the optimization parameter comprises a utility function (See Sammon claims 36 and 47, the function is interpreted to include a utility function. The function computes a numeric value based on user preferences which is what utility functions do).

Sammon does not explicitly teach the steps wherein the utility function is determined in part based on a regression analysis employing at least one constant and the utility function represents at least one of a cost or a benefit.

Official notice is taken that the steps of determining utility function based on a regression analysis employing at least one constant and the utility function representing at least one of a cost or a benefit is old and well known in the art. Estimating any function using regression analysis is old and well known. Regression helps in the analysis of statistical and behavioral data. Regression

Art Unit: 3692

analysis generally have a constant, unless it is purposely suppressed in the specification of the regression equation. Constant gives the value of the equation when the values of the variables are equal to zero. Utility functions that represent at least a cost (negative utility) or a benefit (a positive utility) are old and well known in economic theory. These functions help in decision making when the risk taking attitude of the user is known (i.e. whether the user is a risk taker, risk averse or risk neutral individual).

It would have been obvious to one with ordinary skill in the art at the time of the current invention to combine these steps to the invention of Sammon. The combination of disclosures suggests that these steps would have helped the user in his/her decision making in selecting the relevant options.

8. Claims 8 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sammon, Jr. et al (US Patent 6,012,051) in view of Jacobs (US Patent 5,768,142) and further in view of Walker et al. (US Patent 6,397,193 B1) and Kimura et al (US Patent 5,521,364).

Claims 8 and 32, Sammon discloses a method and means of claims 1 and 26 respectively (as discussed above), wherein step (a) comprises computing the scores for each option and ranking the options within each category by scores. (See Sammon Column 3 lines 27-42). The scores are interpreted to include the effective cost.

Sammon fails to teach the step of including bundling discounts in computing the effective cost.

Kimura discloses a method and means for including bundling discounts in the administration of selling products and services. (See Kimura Column 1 lines 19-26 and 63-67).

It would have been obvious to one with ordinary skill in the art at the time of the current invention to combine the steps taught by Kimura to the invention of Sammon. The combination of the disclosures taken as a whole, suggests that the effective costs would be more comprehensive and the ranking of alternatives more accurate if bundling discounts were considered.

9. Claims 12, 15, 16, 36, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sammon, Jr. et al (US Patent 6,012,051) in view of Jacobs (US Patent 5,768,142) and further in view of Walker et al. (US Patent 6,397,193 B1) and Ulwick (US Patent 6,085,165).

Claims 12, 15, 16, 36, 39 and 40, Sammon discloses a method and means as described in the discussion of claims 10 and 34 above. Sammon also discloses the step of setting a range for the at least one first parameter. (See Sammon Column 8 lines 8-22).

Sammon fails to teach the steps of sampling a random set of customers over the range, determining a best-fit utility function using regression analysis, determine using the utility function a value that represents a cost or a benefit of the parameter to the customer, subtract the benefit and add the cost to the effective cost.

Ulwick teaches the steps of using the data for multiple users and using matrix analysis and mathematical algorithm to develop the predictive metrics for the users. (See Ulwick Column 5 lines 1-39). The predictive metrics are interpreted to include the Utility function and the cost or benefit of the parameter to the customer. The matrix analysis and mathematical algorithm are interpreted to include regression analysis. Official notice is taken that subtracting benefit and adding costs to a cost figure are old and well known in the art.

It would have been obvious to one with ordinary skill in the art at the time of the current invention to combine the steps taught by Ulwick to the invention of Sammon. The combination of the disclosures taken as a whole, suggests that it would help the sellers better tailor the options they offer to suit the needs of a target group of customers. The combined disclosures also suggest that expressing the outcomes in terms of effective costs will give the user a better idea about the relative costs of the various combinations.

### ***Response to Arguments***

10. In response to Applicant's arguments that the specification discloses the recited feature of "optimization parameters including information not provided by the customer" the examiner respectfully disagrees. Applicant's assertion "However, the specification provides several examples of such optimization parameters. For example, utility functions, constants, support statistics and other optimization equations, constants and sample may be stored in an optimization database and/or used to rank options. See, e.g., p. 13, lines 10-20; p. 26. line 3 - p. 27, line 14" does not lead one of ordinary skill in the art to conclude "optimization parameters including information not provided by the customer". Hence the rejections and objections are maintained by the examiner.

In response to Applicant's arguments "There is no suggestion that the component products are in any way linked. Although Walker identifies "complementary product categories" in Fig. 6 (emphasis added), Walker does not teach or suggest selecting options in other commodity categories that are linked to a highest ranked option for a commodity category. In fact, Walker does not describe ranking options in a commodity category at all, let alone a highest

Art Unit: 3692

ranked option for a commodity category”, the examiner respectfully disagrees. As disclosed by Walker in Column 7 lines 1-7, the package assembled for the customer to select includes complementary products, which implies that the component products are linked. Secondly as agreed by the Applicants, Walker teaches selecting options in other commodity categories based on certain rules criteria. Walker is not relied upon to teach the criterion of “a highest ranked option for a commodity category”. This criterion is already taught by Sammon (See Sammon Column 3 line 8 - Column 4 line 13). Walker is only relied upon to teach the feature that is not taught by Sammon. Hence Walker in combination with Sammon teaches the feature of “selecting any options in other commodity categories that are linked to the option selected in step(b)(i)”.

Applicant's other arguments with respect to pending claims have been considered but are not persuasive.

### **Conclusion**

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Narayanswamy Subramanian whose telephone number is (571) 272-6751. The examiner can normally be reached Monday-Thursday from 8:30 AM to 7:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached at (571) 272-6777. The fax number for Formal or Official faxes and Draft to the Patent Office is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PMR or Public PAIR. Status information for unpublished

Art Unit: 3692

applications is available through Private PMR only. For more information about the PMR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dr. N. Subramanian  
Primary Examiner  
Art Unit 3692

April 30, 2007